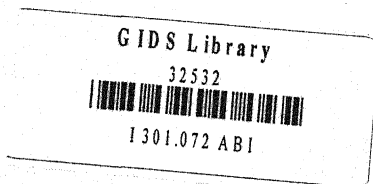


WORKING PAPER No. 182

METHODS OF SOCIOLOGICAL RESEARCH :
SOME METHODOLOGICAL ISSUES AND SUGGESTIONS

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Sector O, Aliganj Housing Scheme
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METHODS OF SOCIOLOGICAL RESEARCH: SOME METHODOLOGICAL ISSUES AND SUGGESTIONS

THE PROBLEM

This paper aims to highlight the necessity of re-thinking "Methods of Sociological Research", the paper prescribed at post graduation level in Sociology, Lucknow University, Lucknow. An attempt has been made to raise some methodological issues so that a common understanding may evolve on the coursework in methodology of sociological research. The rationale behind choosing this particular paper as a case is based on the fact that this paper plays an important role in explaining;

- ♦ the fundamentals of sociological research;
- ♦ a basis for the formulation of conceptual model; and
- ♦ a foundation stone in building up a doctorate, post-doctorate and research work of high excellence.

The discipline of Sociology is one such subject, which is opted by students for various reasons; a post-graduate degree; a doctorate degree including both M. Phil and Ph. D degrees; for the purpose of civil services examinations; bank recruitment examinations NET/JRF and many more. Amongst all the examination one thing remains constant is methodology of sociological research. A careful analysis reveals that the paper taught at M.A. level "Methods of Sociological Research" is obsolete and old fashioned. It does not suffice the purpose of learning methodology. Also, the statistical portion of the paper was designed at that time when Computer Technology was not introduced in India. In the modern world, the hand tabulation, manual analysis, hand graphs etc. have lost their

significance and value. The task of quantitative analysis has been taken over by Info-hi-tech System. Hence, the paper needs to be changed and updated.

SOCIOLOGICAL PERSPECTIVE ON METHODOLOGY

The methodology was, originally defined by French Scholars i.e., Comte and Durkheim and German theoreticians like Dilthey, Max Weber, George Simmel and Von Wiese etc. who rejected the extremes of Historicism¹ and Neo-Idealist tradition arising out of the Kantian and Hegelian Idealist tradition² and poised a methodology for sociological research that facts must be explored in the social reality. Comte as credited with the *father of Sociology* asserted that *methods and assumptions of the natural sciences* would produce "Positive Science of Society..... would reveal that evolution of society followed invariable natural laws". To understand those natural laws in social life, social scientific enquiry must be based on observation experimentation, classification analysis and generalization³ 'In Rules of Sociological Method' Durkheim argued that the first and most fundamental rule is, "consider social facts as things..... in the same way as the objects and events of the natural world. As such they can be directly observed and objectively measured.⁴ With this vantage point, whole of formal school Sociologists; Dilthey, Weber, Simmel, Von Wiese etc. were of opinion that Sociology should not be

¹ K.R. Popper, *The Poverty of Historicism*, London, 1957, pp. 108-9 and also see for example the logic of Scientific Discovery, Eng. trans. 1960.

² Gideon Sjoberg and Roger Nett, *A Methodology for Social Research*, Harper and Row Publications, New York, 1968, p.5.

³ Haralambos and Heald, *Themes and Perspectives*, Oxford University Press, Delhi, 1980, p.492.

⁴ Emile Durkheim, *The Rules of Sociological Method*, The Free Press, New York, 1969, p-14; Haralambos & Heald, *Op. cit.*, p.495; Ravindra Nath Mukerjee, *Social Thought : From Comte to Mukerjee*, Vivek Prakashan, Delhi (Hindi Ed.) p.105-7.

treated as "Jack of all trades", Sociology, in its strict sense, is in distinction from the other social sciences, which deal with special field of human social life.⁵ The difference between natural world and social world was, first, clearly stated by Dilthey⁶ and widely discussed by Max Weber. Max Weber paved the way for an adequate methodology by defining the area of study and subject matter of Sociology. Sociological studies must be restricted to "What" and not to the 'what should be'. This was, perhaps, the first step in identifying the methodology of Sociology.⁷ Max Weber's contribution to methodology was to distinguish between the scientific approach to social data and value judgement approach. These should not be allowed to mix in studying human relations. In his own way, he laid a foundation for the development of a Science of Sociology.⁸

With these perspectives, two schools of thought have clearly emerged as Neo-idealist tradition and positivists. Although, the Neo-Idealist tradition (Hegelian-Marxist and Soviet) School of thought are active in some quarters. Positivist's theory of methodology is largely accepted in most of the countries e.g., France, England, America. Asian Countries and particularly in India As Lundberg has summed up "Social Scientists are committed to the belief that the problems which confront them are to be solved, if at all by judicious and systematic observation, verification, classification and interpretation of social phenomena. This approach in its most rigorous and successful form is broadly designated as the scientific method."⁹ Thus, the scientific method of enquiry has been

⁵ Ravindra Nath Mukerjee, *Ibid*, p.19-20.

⁶ T.B. Bottomore, *Sociology : A Guide to Problems and Literature*, Allen & Unwin, London, 1972, p.49.

⁷ Ravindra Nath Mukerjee, *Op.cit*, p.249.

⁸ E.S. Bogardus, *The Development of Social Thought*, Longmans, Green & Co., New York, 1960, p.479.

⁹ George A. Lundberg, *Social Research*, Longmans Green & Co., New York; 1942, p.1; Karl Pearson, *The grammar of Science*, J.M. Dent & Sons Ltd., London 1936, p.1; P.V. Young with C.F. Schmid, *Scientific Social Surveys and Research*, Prentice Hall of India Pvt. Ltd., New York, 1975, p.102.

widely accepted model for understanding methodology of social research. Social Scientists also believe that if any knowledge is not based on numerical facts, but on qualitative facts, cannot be objective and result-oriented.¹⁰ Therefore, in order to make the study scientific, statistical methods have been utilized in Social Sciences. In this sense statistics is employed as a tool in the analysis of problems in Natural, Physical and Social Sciences.¹¹ The natural and social sciences share a basic methodology that they are similar not by virtue of their subject matter but because they employ the same logic of enquiry and similar research procedures.¹² As a matter of fact statistics is an indispensable tool of sociological research. Most of the knowledge and its advancement could take place due to experiments conducted with the help of statistical methods. In Sociology the use of statistics was first mentioned in the works of Durkheim as a part of 'Data collection' on the subject of 'Suicide' and 'Crime', the data was collected from official statistics produced by government bodies, historical records, newspapers, magazines, films and novels. These inferences suggest that statistics and its application in Social research is not a modern trend but it has been an integral part of social science research since its inception.

The paper (understudy) is also based on scientific method of enquiry, as accepted model for understanding methodology of sociological research, with the help of statistical methods.

¹⁰ G.K. Agarwal and S.S. Pandey, Social Research and Statistics (Hindi Ed.) Sahitya Bhavan pub. Agra, p.383.

¹¹ S.P. Gupta, Statistical Methods, Sultan Chand & Sons Pub. Delhi, 1975, p-1.4

¹² Gideon Sjoberg and Rogar Nett, Op.cit, p.7.

METHODOLOGICAL ISSUES

The paper prescribed at P.G. level is divided into four units. First two units deal with methodological application of sociological research. The latter two units are the application of statistical methods in sociological research. Focussing on methodological issues the present paper is based on three main issues:

- i. to access the scheme and content of both methodological and statistical chapters,
- ii. to review the method of teaching (teaching methodology),
- iii. to analyze the relevance of this paper to the sociological research in 21st century, the computer age.

Before going into details, it would be appropriate to look at a glance the four units of the paper.

PAPER II - METHODS OF SOCIOLOGICAL RESEARCH

UNIT - I

The logic and steps of scientific method: Fact & theory problems and objectivity and value neutrality, Selection and Formulation of Research Problem: Hypothesis.

UNIT - II

The design of Research; Sampling Method; Techniques of data collection, the problem of measurement scaling techniques; sociometry and projective techniques.

UNIT - III

Data Analysis: Classification and Tabulation Graphic and Diagrammatic Representation of data content Analysis and Path analysis Interpretation and Report Writing.

UNIT IV

The application of statistical methods; The methods of central Tendency and Dispersion and Correlation, Association, Interpolation and Extrapolation; Tests: Chi square; student's and 'T'.¹³

¹³ Prospectus for M.A. courses - 2001, Lucknow University, Lucknow, item No.14, 'Sociology'.

A careful analysis of the four units, it is perceptible that the scheme of chapter seems to be extensively lengthy. Its usefulness is dependent upon the required skills to employ those methods and techniques taught in a particular paper. To begin with, the methodological part of the paper is more or less the same at the B.A. level. Most of the topics of Unit-I, II and III are repeated chapters which are already present in the scheme of chapters at B.A. level, e.g., Social Research, the logic and steps of Scientific research, objectivity, formulation of research problem, Hypotheses, the design of research, sampling method, sources & techniques of data collection, data analysis tabulation, interpretation, generalization and report writing.

The only justification could be proposed for prescribing the same topics at M.A. level that these topics are the advanced and detailed description of methodology. It is to common understanding that post-graduation is an advancement of graduation so what is an advanced course? The induction of statistical portion of the paper. However, if we analyze the statistical methods - Unit III-IV, it is clear that the statistical methods begin with the quantitative classification and tabulation. In classification, quantitative classification is one of the four types of classification¹⁴ which is based on two elements (i) variables and (ii) Frequency. In frequency distribution class-intervals and tally-bars help in arranging the statistical data into the form of tables, a mathematical base for tabulation. These are the elementary forms of the 'Elementary Statistical Methods' of the main statistical methods. Do we need these kinds of Lessons at post-graduation level? In other social science disciplines e.g., Economics, Geography, Psychology, Education etc, the classification, tabulation, graphic and diagrammatic representation of data have

¹⁴ P.V. Young and C.F. Schemid, *Scientific Social Surveys and Research*, p.277; S.P. Gupta, *Statistical Methods* Sultan Chand & Sons Pub., Delhi, 1975, p 1.77; Goode and Hatt, *Methods in Social Research*, Mc Graw Hill Book, New York, 1952.

been prescribed in the scheme of chapters at B.A. level. Therefore an ambiguity can be observed in the scheme of chapters. Also, the content of chapters has been framed according to the procedures and steps of scientific method of enquiry. The spectrum is wide and therefore they look like different chapters. The method of teaching also distinguishes the content of chapters from its conceptual model.

Since teaching plays a vital role in the dissemination of knowledge, so teaching methodology needs special mention. Teaching hours are restricted to its time and schedule. Thus teachers also plan their teaching assignments according to time and schedule. In most cases teachers impart lectures chapter-wise without caring the necessity of the subject and inter-relationship between the different chapters of social research, which are not separated but are the steps of a scientific social research. Consequently students do internalize them as different chapters. As far as students understanding methodology is concerned, a disparity may be observed due to their varied background and motivation to enroll in Sociology. There are students.....who have had no background in any of the social sciences; there are students who have a background of some other social sciences, but not sociology; and finally those who have studied Sociology at the B.A. Level.¹⁵ This may be reflected differently in their level of understanding methodology in its right perspective. Certainly, those who have had sociology at the B.A. level, respond positively in the classrooms than those who have had science subjects at BSc. level.* This could be the reason that students who appear in examination like Civil Services, NET/J.R.F. etc. fail to formulate a hypotheses, research design etc. One may ask how the students pass out in their post-graduation

¹⁵ Yogesh, Atal in Gupta, G.R. (ed), Main currents in Indian Sociology Vol.II, Contemporary Indian: Some Sociological Aspects, Vikas Publishing House, Delhi, 1976, p.126.

* Author has been engaged in Teaching in past few years so this paper is a reflection of the teacher-cum-researcher.

examinations. The answer is simple. At post-graduation level, the question-answer method has been adopted by the University Board of Examinations for the evaluation of the students. Question-answers are taught in the classrooms or provided in their coaching centres. It is reported "some teachers even are said to be leaking questions for examinations and helping students in practical examination apart from providing 'expert guidance'.¹⁶ It is commonly seen that students run around their respective teachers to get 'important' for their papers and they manage to pass out their post-graduation examinations. When the objective type questions and the problem of research methodology is put to test the examinees's theoretical knowledge with the application of mind to solve the problem. A few students come up in flying colours. This may be due to lack of understanding methodology in its true sense. The lack of understanding may be caused by the type of teaching. The paper, 'Methods of Sociological Research' is based on methods and techniques having a practical base, but irony of the fact is that all is taught theoretical (Lecture-based). Therefore, the practical aspect of the paper remains absent. Students on their motivation, wisdom and willingness study social research but how to make research formulations? what methods and techniques should be used in a certain type of research? How to prepare a hypotheses, to test a hypotheses analysis? etc. are neither taught (with practicals) nor advised to students for their studies. This is done not only at the theoretical level (concept of methodology) but surprisingly statistical methods have also been taught in a routine manner through traditional learner approach. Teacher standing on a platform and students sitting on fixed benches with pads and pens and noting down in a hurried manner while teacher layouts the problem of statistical methods on black-board from her/his own notebook. It is rarest of the rare that a teacher teaches statistics extempore. As soon as the period is over, teacher goes off to other

¹⁶ The Times of India (Lucknow) "to the bin with the ban says Teachers", May 25, 2002, p.2.

class while students instead of asking their teacher make corrections in left columns among their peers. This definitely, poses a problem for those students who are drawn from non-mathematical background. Most of the students of Sociology belong to this category. Having this background, statistical methods based on certain formulas can not be understood without practicals. In practice no practicals, no exercise work, no follow-up is carried out.

It is also necessary to consider from the methodological point of view that how students are going to employ these statistical methods in computer unless they are taught to enter data in computers, to give commands to enter formulas for a variety of methods e.g., measurement of central tendency, dispersion, correlation, association, interpolation and extrapolation etc. The other aspect of the question, which is of great concern, is upto what level the manual lessons of statistics are usable and acceptable in the modern computer world? The globalization of IT trade and services has radically altered the social life. At a time when computer technology provides readily accessible solutions to each and every problem, the Sociologist are still going on with the old lectures.

To illustrate the problem, measurement of central tendency : Mean, Median and Mode is given below:

MEAN

1. Calculation of Arithmetic Mean

(a) Individual Observation

(i)	direct method	$\frac{X_1 + X_2 + X_3 \dots X_N}{N}$
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(ii) shortcut method $x = A + \frac{\sum d(X=A+d)}{N}$

(b) Discrete Series

(i) direct method $x = \frac{\sum F_x}{N}$

(ii) shortcut method $x = A + \frac{\sum F_d}{N}$

(c) Continuous Series

(i) direct method $x = \frac{\sum X \sum F_m}{N}$

(iii) shortcut method $x = A + \frac{\sum F_d}{N}$

(2) Calculation of Median

(a) Individual Observation

$$Md = \frac{(N+1)}{2}$$

(b) Discrete Series

$$Md = \frac{(N + 1)}{2}$$

(c) Continuous Series

$$Md = L + \frac{\frac{N}{2} - C.F.}{F} \times i$$

(3) Calculation of Mode(a) Individual Observationdiscrete seriesbased on tables

- (i) Grouping Table
- (ii) Analysis Table

Continuous Series

Two Formulas as

$$(i) \quad Mo = L + \frac{\nabla_1}{\nabla_1 + \nabla_2} \times i$$

L = Lower limit of the modal class

∇_1 = the difference between the frequency of the modal class and the frequency of the pre-modal class.

∇_2 = the difference between the frequency of modal class and the frequency of the post modal class.

i = the size of the class interval of the modal class.

(ii) Another Formula

$$Mo = K + \frac{F_1 - F_0}{2F - F_0 - F_2} \times i$$

Let us examine the usefulness and relevance of these methods in the sociological research. If we look at theseses, submitted between (1970-2002) for the award of Ph.D. degree that are published in the form of books, we find that most of the studies are based on tables in which responses have been computed in the percentage term, so that trends, patterns and changes can be easily ascertained. The bulk of data used in sociological research is based on computation of mean, median and mode.

What is lagging behind in Sociology as compared to other social sciences is the use of statistical methods in its full length. The methods of variance dispersion, correlations, association, interpolation and extrapolation have been rarely mentioned in the theseses. This is probably due to two factors (i) due to lack of knowledge (ii) Sociologists have to generate data transfer of facts 'responses' into figures 'statistics'. This exercise in itself is a tedious job, so if one wishes to apply statistical methods has to exercise energy, wisdom, money and time. Social researches are mostly time bound and framed studies. Therefore, the statistical methods in its full length can be seen in the sociological analysis of quantitative methods and not in the use of quantitative methods in Sociology. Two questions can be raised:

- (i) if statistical methods other than measurement of central tendency are not in use, why cannot it be deleted;
- (ii) if methods are relevant to sociological research, these should be taught thoroughly.

It is significant from the above discussion that the paper has been prescribed without the prior testing and checking abilities of the students. The relevance of the paper is obvious from scheme of chapters and method of teaching that the paper does not fit in the modern

computer world. The manual process of classification, tabulation, data analysis, graphs and diagrams have been taken over by computer technology. Thus computer education of Sociological methods must be made compulsory.

This comes to mean that the relevance of the methodological course in sociology prescribed at post-graduation level may be regarded as a prelude of methodology and not related to the formulation of concepts in social sciences. As Singh defines the relevance of social science in India, to quote him, "it refers to formulation of concepts and methods of social sciences which satisfy the principles of adequacy and validity in the understanding or explanation of social reality".¹⁷ This is exactly the case may be with the relevance of methodology. The paper should satisfy the 'needs of the students who either pursue their doctoral work or appearing for civil services or an entrance test for lectureship (NET/JRF). Results, however, show the response negatively.

SUGGESTIONS

Keeping these methodological issues, it is imperative to look forward towards a re-thinking of Methodology of sociological research. It is evident from the earlier discussion that the paper is extensively lengthy, obsolete and old fashioned. It contains two parts. Part one - Methodology and Part two - Statistical methods. At first, these two parts of the paper need to be separated and may be treated as two separate papers. The syllabus of M.A. part-one carried four papers therefore, if needed, one may be added to the coursework. The statistical portion starts from the fundamentals of statistics to the statistical methods (all at one point). In addition to statistical methods representation of

¹⁷ Yogendra Singh, "The relevance of Social Science in India : Some Reflection" in Relevance in Social Science Research : A Colloquium, Institute of Economic Growth, Vikas Publishing House, New Delhi, 1982, p.25.

diagrams, graphs, scaling methods and scoring methods are also included in the course.

It definitely poses a problem for both teachers and students - the knowledge givers and knowledge seekers. Thus, the burden should be reduced either by denoting a new paper or by deleting some of the statistical chapters from M.A. level and may be added to B.A. level with the chapters on statistics, which are already taught at B.A. level for example - classification and tabulation etc. as is the case with other social sciences i.e., Economics, Geography, Psychology and Education. There should be a universal pattern of papers, subject matter and method of teaching in all the social sciences.

The method of teaching is always focussed in the discussions whenever de-escalation of educational standards and deterioration of results are figured out. As mentioned earlier that both methodological and statistical methods are taught in a routine manner through traditional - learner approach. Therefore all is taught theoretical (Lecture-based teaching). No practicals no homework, no exercise is done. Hence the most needed requirement is - Practical. It could be tutorials tests, term paper, field study, sample survey or a dissertation.

The role-perception of teachers towards their profession should also be changed. It is overwhelmingly reported that teachers are less committed to their profession and more oriented towards commercial gains. To pull up their socks U.G.C. has devised Orientation Courses and Refresher Courses for the University teachers. These courses have been made compulsory in the Career Advancement Scheme, promotions, faculty positions etc. In one of the orientation courses programme Nishi Pandey, Director, Academic Staff College stressed on the need of new teaching methodologies and body language "instead of merely delivering lectures, teachers should learn to spell out through

his/her body language that he/she is accessible to the students.the old set-up sees teacher as 'power centres' with the teacher standing on a platform and students sitting on fixed benches. This now needs to be changed." The new concept of a teacher requires them to be 'excellent performers' in the classroom. Aesthetically dressed, equipped in multi-disciplines, proficient in reading the body language of students and with a command over their physical movements as well.¹⁸ It is interesting to note that Prof. Nishi Pandey stressed on delving new teaching methodology. Contrary to this Honourable *Governor, U.P. advised to conserve the old tradition of teachers. He remembered old timers who used to have penanced and lectured throughout their lives. Unfortunately, that has lost in this generation of teachers. Therefore, he suggested Teachers to set an example before their students "many problems arise in universities due to disinterest of teachers and their involvement in Political and other activities."¹⁹ In comparison to these statements of the administrators, Prof. Yogesh Atal as a Teacher suggested a middle path by explaining how a teacher can change her/his method of Teaching. To quote him, "it is possible to make some innovations in the Syllabi without affecting the University norms. A teacher may find it difficult to change the entire syllabus or to introduce new topics in a paper but he/she can certainly modernize the content of a topic that is already included in the syllabus; fresh research materials and recent publications can be utilized by him but that is rarely so."²⁰

To conclude, it can be safely assumed that there is a need to change the method of teaching. The use of IT technology has increased manifold in the field of education that

¹⁸ The times of India "Walk the talk", Teachers Advised., Lucknow (ed), May 25, 2002, p.2.

* Hon. Governor, U.P. was speaking on the occasion of a National Seminar on "Challenges of Higher Education in 21st Century", held between 24-26 July, 2002.

¹⁹ City Pioneer, " Poor Education Level Worries, Governor", Lucknow, 25 July 2002, p.1.

²⁰ Yogesh Atal, "Sociology in the Indian Campus", Op cit, p.130.

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should be incorporated in the curriculum on methodology. What is the use of Teaching such a topic which is not relevant today or does not help a student, a researcher, a Sociologist in enhancing the knowledge and skills. Any paper, book or coursework must be stopped or should be changed. Even laws are repealed deleted or amended from time to time. Therefore, a re-thinking of the paper "methods of Sociological research" is necessary, which can meet the requirements of this millennium and aspirations of this computer age.

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